

In the claims:

1-25 (canceled).

26. (currently amended) A method of treating cancer modifying the sensitivity of cells containing stem cell factor receptors to a chemotherapeutic agent comprising administering to a patient a chemotherapeutic agent and a monoclonal antibody, or fragment thereof, which binds to an epitope on a receptor recognized by human stem cell factor, wherein the antibody or fragment is administered in an amount sufficient to inhibit binding of stem cell factor to the receptor or to decrease the growth and/or development of receptor-containing cells, ~~thereby modifying the sensitivity of the cells to the chemotherapeutic agent.~~

27. (previously presented) The method of Claim 26 wherein the monoclonal antibody or fragment thereof binds to an epitope being recognized by the monoclonal antibody produced by the hybridoma cell line ATCC No. HB 10716.

28. (previously presented) The method of Claim 26 wherein the monoclonal antibody is produced from the hybridoma cell line ATCC No. HB 10716.

29. (previously presented) The method of Claim 26 wherein the monoclonal antibody or fragment thereof inhibits binding of human stem cell factor to the receptor by at least 50%.

30. (previously presented) The method of Claim 26 wherein the monoclonal antibody or fragment thereof inhibits binding of human stem cell factor to the receptor by at least 75%.

31. (previously presented) The method of Claim 26 wherein the monoclonal antibody or fragment thereof inhibits binding of human stem cell factor to the receptor by at least 90%.

32. (previously presented) The method of Claim 26 wherein the monoclonal antibody or fragment thereof inhibits binding of human stem cell factor to the receptor essentially entirely.

33. (previously presented) The method of Claim 26 wherein the monoclonal antibody or fragment thereof decreases the growth rate of receptor-containing cells by at least one half.

34. (previously presented) The method of Claim 26 wherein the monoclonal antibody or fragment thereof decreases the growth rate of receptor-containing cells by at least one tenth.

35. (previously presented) The method of Claim 26 wherein the monoclonal antibody or fragment thereof decreases the growth rate of receptor-containing cells by at least one hundredth.

36. (previously presented) The method of Claim 26 wherein the receptor-containing cells are early pluripotent hematopoietic progenitor cells, leukemia cells, solid tumor cells and bone marrow cells.

37. (previously presented) The method of Claim 26 wherein the monoclonal antibody or fragment thereof comprises a murine variable region and a human constant region.

38. (previously presented) The method of Claim 26 wherein the monoclonal antibody or fragment thereof comprises a murine hypervariable region and a human constant and framework region

39. (previously presented) The method of Claim 26 wherein the monoclonal antibody or fragment thereof comprises a human monoclonal antibody.

40. (previously presented) The method of Claim 26 wherein the monoclonal antibody or fragment thereof comprises a pharmaceutical composition containing the antibody.

41. (previously presented) The method of Claim 40 wherein the composition comprises a buffer, diluent and additive.

42. (previously presented) The method of Claim 40 wherein the composition comprises a phosphate buffer.

43. (previously presented) The method of Claim 40 wherein the composition comprises a sterile isotonic aqueous solution.

44. (previously presented) The method of Claim 40 wherein the composition comprises Tween.